AUTHORIZED EDITION.

FACTS

ABOUT

VACCINATION.

SPEECHES IN PARLIAMENT,

19th June, 1883, *by*

The Right Hon. SIR LYON PLAYFAIR, K.C.B.

AND

The Right Hon. SIR CHAS. DILKE, BART.,

President of the Local Government Board.

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HOUSE OF COMMONS, JUNE 19TH, 1883

MR. P. A. TAYLOR (Leicester), moved—"That in the opinion of this house it is inexpedient and unjust to enforce vaccination upon those who regard it as unadvisable and dangerous."

SIR LYON PLAYFAIR'S amendment—"That in the opinion of this house the practice of vaccination has greatly lessened the mortality from small-pox, and that laws relating to it, with such modifications as experience may suggest, are necessary for the prevention and mitigation of this fatal and mutilative disease."

THE HOUSE DIVIDED :—

For Mr. Taylor's motion	16
„ Sir Lyon Playfair's amendment ...	286
Majority in favour of Sir Lyon Playfair's amendment	270

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FACTS ABOUT VACCINATION,

BY

Sir Lyon Playfair & Sir C. Dilke.

SIR LYON PLAYFAIR said—

If the resolution of my hon. friend the member for Leicester (Mr. Taylor) means nothing more than it expresses, a very short argument would be necessary to meet it. But it must be read between the lines, as a distinct attack on vaccination, root and branch. When my hon. friend began his agitation, he did not dispute the protective powers of vaccination, but he objected to its compulsory application. That is all that is implied in express terms in his resolution now, but his speech shows it means much more than it expresses. In the mind

of my hon. friend vaccination itself is an evil thing, and ought to be extirpated. If he so believe, his resolution ought to express his belief, and he should bring in a Prohibitory Act, as was done in the case of inoculation in 1840.

My hon. friend and the Association with which he acts attack vaccination on two grounds. The first is that it is positively injurious, as a means of introducing disease into the bodies of the vaccinated; and the second is, that it has no protective power against small-pox, which it is supposed to prevent or mitigate. I will deal with these fundamental objections in order.

The assertion that vaccination produces disease was carefully examined by a Committee of this House in 1871. An active member of that Committee was the hon. member for Leicester (Mr. Taylor), and he will bear me out when I say that we carefully heard the evidence of the anti-vaccinators and formed a unanimous conclusion upon the evidence which they produced. The allegation that vaccination has been known to produce syphilis was practically proved in a few cases in which vaccine lymph had been taken from children suffering from congenital syphilis. The possibility of such infection is a terrible

fact, but, fortunately, one of the extremest rarity. We had it in evidence that among 151,316 re-vaccinations of soldiers, not one such case had ever been observed, although among them syphilis is far from rare. Since 1852, about 17 million infants have been vaccinated in England and Wales, and among these, if there were any large truth in the allegations, not tens but hundreds of cases must have been observed; and yet it is extremely doubtful whether half-a-dozen central cases of propagation have been reasonably suspected. But though this offensive disease is admittedly only possible by the grossest neglect, certain skin diseases such as erysipelas and eczema, are alleged to be consequences of vaccination. Admittedly, they may follow the irritation of vaccination, just as they follow the irritation of teething, or as erysipelas frequently appears after a surgical operation. Generally they are instances of *post hoc*, but in a few cases, as at Norwich, they are *propter hoc*. Very rarely have they been fatal. That they have been so in very rare instances does not constitute an argument against vaccination. Who would forbid the use of anæsthetics in surgical operations because patients have died from their use? Who would stop the use of narcotics because to some

persons they produce the sleep of death? Who would prevent men drinking water because sometimes polluted water produces typhoid fever? So the Committee of 1871, after hearing all the evidence tendered against vaccination as the producer of disease, came to the conclusion, in the words of the report, that "there need be no apprehension that vaccination will injure health or communicate any disease." It is true that the hon. member for Leicester (Mr. Taylor) moved the omission of these words, but what were those which he proposed to substitute? They were these—"That some few cases of disease have been communicated by vaccination, but the danger is so infinitesimal in respect to proportion, that, subject to the conditions mentioned above, the Committee do not hesitate to express their conviction of the practically safe character of the operation." I think, then, as the hon. member for Leicester himself, acting as a judge, after hearing the evidence, characterised the subject "as infinitesimal in respect of proportion," I need not trouble the House with any further remarks on this branch of the subject.

I therefore pass to the second postulate of the hon. member—that vaccination is no protection against

small-pox. Do not forget what is the nature of the disease against which we seek protection. Sir Thomas Watson describes it in a few words as "the most hideous, loathsome, disfiguring, and probably, except hydrophobia, the most fatal also of the various diseases to which the human body is liable." Against this mutilative and hideous disease we seek to erect barriers by vaccination. Individually, persons, since the time of Jenner, protected themselves. The amount of protection, even by its discoverer, was thought to be equivalent—but no more than equivalent —to that of an attack of small-pox. In most cases, when men have had measles, scarlatina, or small-pox, they are protected from future attacks, but not invariably, for there are some persons who are subject to more than one attack. In the call of the House of Lords to the Royal College of Physicians to report to Parliament on the whole subject of vaccination, this liability is stated in express terms. This report is dated 1807, or nine years after Jenner had published his discovery. The words are—"Where small-pox has succeeded vaccination, it has been neither the same in violence nor in the duration of its symptoms, but has, with very few exceptions, been remarkably mild, as if the small-pox had been deprived by the

previous vaccine disease of all its usual malignity." That is precisely the state of our knowledge now, so that it is no discovery of the anti-vaccinators that there are cases of post-vaccinal small-pox. In examining the state of vaccination, we must compare the mortality from small-pox with that of the last century. This, Dr. Farr tells us, was 3,000 per million of the population annually for the whole country. For the first forty years of this century vaccination was promoted among the people by charitable agencies, and the mortality had fallen to 600 per million by 1840, or was then only one-fifth the amount of last century. Still, 600 per million is a high rate of mortality, and Parliament began in 1841 to give funds for gratuitous vaccination, so as to spread it more rapidly among the people. This continued till 1853, and the mortality was now 305 per million, so that gratuitous vaccination of the State reduced the mortality to one-half. Then, in 1853, Parliament passed an obligatory law, which remained without administrative means of enforcing it till 1871; but still during this period of obligatory vaccination, the mortality fell to 223 deaths per million. In that year a law was passed making it compulsory on Boards of Guardians to appoint

vaccination officers, and since that time the average mortality has been 156 per million. Every successive step, then, in promoting vaccination has been followed by a great reduction in the rate of mortality. Voluntary efforts reduced the mortality of the last century from 3,000 to 600 per million; gratuitous vaccination by the State reduced it to 302, and obligatory law inefficiently administered reduced it to 223, and the same law under vaccination officers further reduces it to 156.

That is the general result as regards England and Wales. Scotland and Ireland did not get a compulsory law till 1863, or ten years later than England. In the next ten years there were two years of a very heavy epidemic, but still the average mortality of this decade was 214 per million in Scotland, and only 108 in Ireland. From 1875 to 1882 the rate in Ireland has been only 72 per million, and is scarcely measurable in Scotland, for it is only 6 per million. My hon. friend the member for Stockport (Mr. Hopwood), both in and out of Parliament, points to the epidemic of 1871-3 in Scotland as a refutation of what he deems a supremely silly remark of mine, that the Vaccination Act in Scotland was sufficient to stamp the disease

out of that country. That is exactly what it has done. The words "stamp out" are borrowed from the Cattle Plague Commission, of which I was a member. The Cattle Plague Commission thought that the measures recommended by them were sufficient to stamp out the disease, but not to keep it out, for great epidemics are like huge tidal waves, which may roll over any ordinary embankments. It must be borne in mind that these embankments are never wholly continuous, for the unvaccinated are like holes in them, through which the flood of disease finds its way. Vaccination is, under ordinary conditions, a sufficient protection, but in the presence of a great epidemic it is overtopped, and small-pox spreads over a country, attacking the unvaccinated and those whose protection has worn out by age—as it increases in volume, the vaccinated too are carried away by it, but vaccination is their life-belt, and they rarely perish. It was so in Scotland in the great epidemic to which I will allude later on in greater detail. When such an epidemic strikes a population, they become terrified, and they rush in crowds to be vaccinated. At that time the compulsory law had only existed for eight years in Scotland, and only the infant population had come under its influence.

But still the people of Scotland, not being cursed with Anti-Vaccination Societies, rapidly extended vaccination among themselves, and stamped out the epidemic. Since then small-pox has scarcely existed in that country. For the last few years the total number of deaths have not exceeded 10 per annum.

These great reductions in the rate of mortality from small-pox I believe to be due wholly to vaccination; but my hon. friend the member for Leicester attributes them to improved sanitation and to the improved habits of the people. But if that were true, this sanitation must equally affect other diseases besides small-pox, and no doubt it does, but to what amount? If we compare the period of gratuitous vaccination with that of efficient compulsory vaccination, the Registrar-General tells us that, among children under five, the small-pox mortality has decreased by 80 per cent., while that from all other diseases has only decreased by 6 per cent. As age advances beyond fifteen years mortality does decrease in other diseases, probably from sanitation, but it increases as regards small-pox, showing how little influence that has as a factor in governing the progress of that disease. The cause of the increased mortality in small-pox at advanced ages is probably that there are still many

unvaccinated, and that among the vaccinated the protective power wears out as age advances. The fact, however, conclusively shows that improved sanitation has little connection with the large reductions in the rate of mortality from small-pox over the whole community.

The results which I have described are the figures of the Registrar-General, and are derived from an examination of long periods, so as to include the epidemic and non-epidemic years. How is it that they sound so differently from the figures given by the mover of the resolution? He startles you with large figures, such as 40,000 deaths in the Metropolis during an epidemic, and he rarely throws them into comparable rates of mortality. He also relies chiefly on the returns of London mortality, and puts on one side the saving of life throughout the country. But I intend to meet him on his own ground, and to show that the case for compulsory vaccination is best supported by epidemic periods.

Modern science tends to show that such diseases as small-pox arise from the growth in the blood of minute organisms. Now, like other crops, there are good and bad years for their growth. Just as there are good years for pears, apples, and plums, so there are

good years for small-pox, measles, and scarlatina. In the case of small-pox, these good years come every fourth or fifth year, and then the crops are good or excessive. There are three varieties of small-pox, which represent themselves in the epidemics. The first is discreet small-pox, where the pustules are separate and discreet, and it is rarely fatal. Then comes the confluent small-pox, where the pustules run together. In this form nearly half, or 50 per cent., of the unvaccinated die. Of the vaccinated when attacked, 15 per cent. die. Thirdly, comes the black or malignant form, which rarely attacks the vaccinated, but when it does it proves as fatal to them as to the unvaccinated, for 95 per cent. of the persons attacked by this form of small-pox die. It rarely visits this country now in an epidemic form, but it did appear in a marked manner in the epidemics of 1871-72, and the London epidemic of 1881.

It was largely seen in the epidemic which devastated France in 1870, and which passed all over Europe in that and the two following years. Just as "Sweating Sickness" followed in the train of the wars of the Red and White Roses, so did malignant small-pox follow the camps of the French and

German armies in 1870. Both Powers had about half a million of men in the field, but under very different conditions. Germany was quite prepared for the war, and had its troops under perfect organisation. All its recruits were re-vaccinated. In ordinary times France also encourages the re-vaccination of the recruits, and in the year before the war about 40,000 recruits were so treated. But Prussia does it more systematically, and in the same year vaccinated 216,426 of its soldiers. Nevertheless, the Paris garrison in the early part of 1870 had scarcely any small-pox, while 1,000 of the civil population had already died. The recruits who were hurried in from the provinces soon added to the military deaths.

Dr. Leon Colin, the Physician-General of the French army, has published a work on the small-pox epidemic during the war. He tells us that the levies hurriedly raised were unvaccinated. I give his own words:—"The different armies raised thus in haste, and placed in the field without time for re-vaccination, were exposed both at their places of gathering and in their marches to the attack of this epidemic:" and the consequence was that during 1870 and 1871 a great number of French soldiers

died of the disease, of whom 1,600 died in the garrison in Paris, out of an army of 170,000. The small-pox followed the German camps also, but only 263 of their well-re-vaccinated soldiers died. It was not because they were Germans that small-pox spared them, for it attacked the city of Berlin in January, 1871, and was nearly as fatal to the civil population there as it was in Paris during the siege. I contend that the German soldiers escaped on account of their re-vaccination. Many hundreds of them were prisoners in Paris during the siege, and only one of them was attacked by a mild form of small-pox. Could a more pronounced experiment on a large scale have been made in regard to the value of vaccination?

This epidemic became pandemic, for it not only devastated Europe, but invaded both North and South America, as well as the South Sea Islands. Before describing its ravages in this country, I may as well say how far it influenced our ninety thousand re-vaccinated soldiers. It entered our army as it did this country, in 1871, and lingered in it during 1872, but during those two years it only killed forty-two soldiers. The epidemic of 1871, however, struck the civil population of England and Wales strongly, and was

exceptionally severe in the metropolis. With the exception of local outbursts in Birmingham, Liverpool, and Salford, the small-pox since 1873 has been very small in all our large towns, except London, where it has lingered, and came as a renewed outburst in 1877 and 1881. Most of the arguments of the anti-vaccinators are derived from metropolitan small-pox. Thus, in 1880 the total deaths in England and Wales from small-pox were 648, out of which London alone was responsible for 471. The epidemic of 1871-72 was general and severe, but the recent epidemics of 1877 and 1881 have been mainly metropolitan. I mentioned that before vaccination was introduced in last century the deaths from small-pox throughout the country were 3,000 per million over periods embracing epidemic and non-epidemic years, but in the heavy malignant epidemic of 1871-2 the death-rate was 928 per million over the whole country. The average death-rate from small-pox in the metropolis before vaccination was 4,000 per million, and in the great epidemic year 1871 it was 2,420 per million. So that even in this exceptionally severe epidemic the death-rate was only about one-half of that of average years in last century.

The anti-vaccinators say, Why did it enter into a

metropolis of which at least 95 per cent. of the people are vaccinated? But that five per cent. means a residue of 190,000 unvaccinated persons, besides all the imperfectly vaccinated, and those in whom the protective effects have worn away by age. Surely that is soil enough for a good harvest of small-pox. While, therefore, other parts of the country seem to have recovered from the great epidemic influence of 1871, London has not yet gained control over the disease. It had practical immunity in 1873, 74, 75, but outbursts came in 1877 and 1881—in the latter year to about one-third of the extent of 1871, but still amounting to 640 per million. That, large as it is, represents about one-fifth of the average mortality of the last century. The other parts of England and Wales during the same year had only a mortality of 100 per million. The anti-vaccinators point to the fact that there were absolutely more cases of small-pox among the vaccinated than among the unvaccinated during the epidemic—a fact which obviously must arise when 95 per cent. are vaccinated.

Looking at the epidemic generally throughout the kingdom, the argument may be put in this way. When the 1871 epidemic went over the country, there was an infant population of more than three millions

under 5 years of age. It consisted of two classes in daily intercourse with each other; but one class (the vaccinated) was thirty or forty times more numerous than the other. They, however, lived intermixed, residing in like houses, eating the same food, and breathing the same epidemic air. In the class which was thirty or forty times the size of the other, 413 deaths occurred, while in the smaller class 1,780 deaths occurred—that is, four deaths occurred in the smaller class for every death which occurred in the class which was thirty or forty times larger. If you convert that into a rate of mortality for each class, you will find that the rate of mortality was from 120 to 160 times greater among the unvaccinated than among the vaccinated children. The only circumstance which differentiated these millions of children was vaccination, and as the incidence of small-pox was so enormously different in its mortality according as the class was or was not vaccinated, the conclusion as to a very large amount of protection in the case of children is irresistible. If you carry the argument to the general population of all ages, the Registrar-General tells us that in the same number of people the vaccinated give one death, and the unvaccinated 44 deaths.

The hon. member for Leicester bases his argument also on the fact that the town which he represents, though so badly vaccinated, has had little small-pox, or practically none at all in recent years. That is equally true of well-vaccinated and badly-vaccinated towns throughout the country. In 1872 Leicester was not a badly-vaccinated town, and perhaps my hon. friend might argue that was the reason why it had 313 deaths. Well, I earnestly hope it will not soon come under an epidemic wave, for I can give him an instance of a large town which did neglect vaccination among its people, and of the results which followed when an epidemic struck it. Leipsic was the centre of a most zealous propaganda against vaccination, in which the anti-vaccination associations were powerfully assisted by the press. The result of their agitation was that infantile vaccination had been greatly neglected, and Leipsic was in that happy state which Leicester now rejoices in, of having refused to vaccinate its children. Leipsic had been singularly free from small-pox, as Leicester now is. In 18 years from 1851 to 1870, it had only 29 deaths from this disease, and the anti-vaccination propaganda pointed to it with triumph. But the pandemic reached this town of 107,000 inhabitants towards the close of 1870,

and killed 1,027 of its people, of at the rate of 9,600 per million. The infantile death-rate was terrific. There were 23,892 children living under fifteen years of age, and among them were 715 deaths—actually 3 per cent., or at the terrible rate of 30,000 per million. I have given an example and a warning, but I doubt whether the hon. member for Leicester will profit by it. If the hon. member for Leicester cares to know my authority for these statements, I refer him to the accounts of the Leipsic epidemic by the German physicians, Wunderlich and Thomas.

The Vaccination Acts are not sufficient to resist a great epidemic wave, but they act as a breakwater and lessen its force. In the last metropolitan epidemic of 1881 it was found that 90 in every million of the vaccinated died from its effect, but no less than 3,350 per million of the unvaccinated perished. The reason for this is that even when malignant small-pox strikes the vaccinated, it becomes modified or mild in 73 per cent. of the cases, and retains its virulent form in only 27 per cent. But when it strikes the unvaccinated, 97½ per cent. of the cases pass through the virulent form, and only 2½ per cent. become mild. Hence the perils of attack are vastly greater among the unvaccinated than among the vaccinated. An analysis

of 10,000 cases in the metropolitan hospitals shows that 45 per cent. of the unvaccinated patients died, and only 15 per cent. of vaccinated patients.

The hon. member for Leicester treats these hospital statistics as wholly incredible, but they are verified by the hospital statistics in our provinces, and also by those of other countries during the pandemic. He can only deny them by assuming that a huge conspiracy exists among the medical men of all nations for the purpose of injuring mankind at large. A conspiracy has some supposed advantage to be gained by its success. But how can doctors all over the world benefit by keeping doctors poor through making their patients healthy? These statistics of disease correspond in countries which had compulsory laws and in those which have not. Across the Atlantic there is no direct, though much indirect, compulsion, and no motive to falsify statistics of mortality. But in America the mortality among the unvaccinated was even greater than in London during the pandemic. In Boston, the rate of mortality among the unvaccinated was 50 per cent.; in Philadelphia, 64 per cent.; and in Montreal, 54 per cent.: while the deaths of vaccinated patients ranged between 15 and 17 per cent.

The arguments of anti-vaccinators are so protean

that one never knows what they are. When they assert that vaccination is no protection against small-pox, and does not lessen mortality, our reply is conclusive. But in the same breath they admit a largely diminished mortality by vaccination, but say that it does not lessen the sum of human mortality, for when small-pox deaths lessen, other diseases increase; and they seem to invite us to enter a Golden Age when all of us should take small-pox as of yore in order to protect us against other diseases. They attach no importance to the discoveries of modern science, which clearly point to the fact that each disease is specific in its character, and that as little could you produce bronchitis, scrofula, or consumption from *vaccine virus* as you could produce a rose from a cauliflower, or a mastiff from a guinea pig. That other diseases may produce a greater number of deaths when devastating small-pox is subdued is as certain as the mortality of man, for if he does not die of one thing he will die of another. But an expensive return was made to the House in 1877, giving the deaths of fifteen diseases before and after vaccination. This return shows that some diseases had an increased and some a lessened mortality; but for their purpose they are ludicrously perplexing. Thus, the main in-

crease was in bronchitis, which has about the same relation to vaccination as the Goodwin Sands have to Tenterden Steeple. Erysipelas, scrofula, and convulsions, which are the pet outcomes of vaccination, had actually decreased upon the whole population. Syphilis, indeed, had marvellously increased, but the Registrar-General has since told us that the classification was different in the first and second period, and could not be compared. While, therefore, fully admitting that man is mortal, and that he must die of something, I believe, both in logic and in fact, that the conclusions drawn from this 1877 return are just as worthy as if I asked the House to accept as a conclusion that the few deaths of small-pox in Ireland in 1882 were the causes of the increased number of Fenian assassinations in that year.

Surely the history of this last epidemic tells us most clearly that the foe is at our doors, stronger and more hostile than it has ever been during this century. It is the same form of small-pox which killed Queen Mary, wife of William III., described by Macaulay in these terms:—"The Plague had visited our shores only once or twice within living memory, but the small-pox was always present, filling the churchyard with corpses, leaving on those whose lives it spared

the hideous traces of its power, turning the babe into a changeling, at which its mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover." When he thus described small-pox, everyone was as subject to it as we now are to measles, and happy were the survivors who passed through with unimpaired health or without disfigurement. Now, thanks to vaccination, though its malignity at the present time is as great as then, we have, to a large extent, protected the population by compulsory laws, and it is this protection which it is sought to remove by a resolution, concealed in its purpose, but obvious in its design. I fear that I have wearied the House by statistical results, but they could not be avoided. To my mind, they prove conclusively that small-pox is now as malignant and loathsome a disease as it was 200 years ago, and that it is only kept at bay by the protective influence of vaccination. This resolution, if adopted, would bring us back to the year 1840, by which time charity vaccination had reduced the mortality of 3,000 per million to 600 per million, for I presume it would be followed up by another resolution preventing State funds being used for optional vaccination. Compulsory vaccination has reduced the mortality, including

epidemic periods, to one-fourth this amount; but we are to renounce this advantage, because there are certain parents who think the law is unjust and oppressive.

We have many laws interfering with personal liberty. We restrict hours of labour to working men, although many of them think our restriction unjust. We punish the rash traveller who jumps into a train in motion, although it would injure no one but himself. If small-pox affected an adult individual only, his right to take it could scarcely, however, be disputed. We do not punish a man for burning down his own isolated mansion if no one is injured but himself. But we do punish him if he risk a neighbour's property by his act. Every case of small-pox is a new centre of contagion. A man may exercise his own personal taste for any disease which he chooses, provided he does not injure his neighbours by his idiosyncrasy. But when he produces omissional infanticide of his own and his neighbours' children by neglect or duty, the State may intervene to protect the young population from a fatal and mutilative disease. This disease is just as fatal and hideous as it was in the last century, but it has been controlled by wise and beneficent laws. Will you allow the country to slip back to the period of voluntary vaccination, and dis-

seminate many thousands of new centres of contagion among the community? That is the question which you are asked by the vote of to-night to determine.

Sir Charles Dilke said his two hon. friends who opened the debate used language so violent with regard to the effects of vaccination that his own feeling when listening to them was one of astonishment—astonishment that, having been frequently vaccinated himself, he should find himself alive to tell the tale. His hon. friends had been so completely and crushingly answered upon the statistical side of their statement by his right hon. friend, Sir Lyon Playfair, that he need only very briefly allude to that portion of the question.

The House had often had the advantage of hearing his right hon. friend upon scientific subjects, but he did not think they ever had a greater treat in the way of a scientific exposition than that which he had afforded them to-night. The hon. members for Leicester and Stockport spoke a great deal of the effect of improved sanitary conditions on the suppression of small-pox, but on contrasting three successive periods—namely, between 1847 and 1853, the optional period; between 1854 and 1871, which

was spoken of as the obligatory period; and between 1872 and 1880, or the compulsory period—they would find that the decline had been chiefly among children under ten years of age. The reduction of the death-rate from small-pox, as between the first and third periods, was from 100 to 51 in people of all ages, and from 100 to 20 in the case of children under five years of age. The corresponding reduction in other causes of death had been from 100 to 93 in people of all ages, and from 100 to 94 in cases of children under five years old. In the century the death rate from small-pox was slightly increased by inoculation; but when vaccination began to be practised at the beginning of the present century, the mortality fell with astonishing rapidity. Therefore it was impossible to argue with any approach to truth that the great mortality of the last century was owing to inoculation. In the early part of the last century a schoolmaster in Kilmarnock kept a very careful register of every death and the cause of it in the district. That register had been most elaborately examined and it was found that the death-rate in Kilmarnock from small-pox, there being no inoculation, was twenty times greater than at present for people of all ages, and of children under 5 years old

thirty-five times greater than it was now. The hon. member for Leicester attempted to disprove the statement that the most carefully revaccinated class—namely, the nurses—were absolutely free from small-pox, although exposed to the greatest possible danger, and stated that some of them had died. He (Sir C. Dilke) was prepared to say his hon. friend had been misinformed. No case had been known among the nurses of the London Small-pox Hospital, and there had been only three slight cases among the nurses of the Metropolitan Asylums Board. It was notorious to every medical man, and to hon. members, that persons exposed to so high a degree of contagion must certainly have contracted small-pox in considerable numbers and died had they not been protected by vaccination. Then in the case of the persons permanently employed in the postal service in London—averaging 10,504—who were required to undergo vaccination on admission unless it had been performed within seven years, there had not been a single death from small-pox between 1870 and 1880, which period included the small-pox epidemic, and there had been only ten slight cases of the disease. In the Telegraphic Department, where there was not so complete an enforcement of vaccination, there had

only been twelve cases in a staff averaging 1,500 men. There had been on the whole a steady diminution of the death-rate of the country—from 24·4 in the ten years between 1840 and 1850, to 21·4 between 1870 and 1880, and 19·3 in 1881–2.

The evidence of Mr. Jonathan Hutchinson was to the effect that syphilis could not be conveyed by pure lymph, even from a syphilitic child. The hon. member for Leicester said that the experience of Germany was on his side, and he spoke generally as if there were a growth of European opinion in that direction. He could not admit that his hon. friend was correct. He believed that in one Swiss canton the compulsory law had been repealed, but since 1871 Denmark, Holland, Roumania, Spain, and Germany had made changes in the direction of compulsory vaccination. The hon. member for Stockport said that the most sacred point with the Local Government Board was the enforcement of vaccination under repeated penalty. Before the Committee of 1871 a Scottish witness gave evidence that there were no cases of repeated penalties in Scotland, but that still there was much more complete immunity from small-pox and more general vaccination than in England. That Committee, in their report, expressed doubt as to the wisdom of the law of

repeated penalties. The Local Government Board were of opinion that repeated penalties defeated their own object, and that they did not secure the proper observance of the law, and the proper respect for the law, but the Board were doubtful whether that was the view of the House of Commons. He should have thought a more practical debate than the debate on the question whether vaccination was good or bad might have been raised, if his hon. friend had brought before the House a motion which would have directly tested the opinion of the House on the question of repeated penalties. It was because he (Sir C. Dilke) was favourable to vaccination that he desired to see a change in the law in this respect. If the view of the hon. member was against repeated penalties, he had better raise that question distinctly before the House, and bring forward a motion on the subject. He did not think this was a case for inquiry by a Select Committee. The object of the hon. member would not be served by an inquiry, because he had already the unanimous report of a Committee of the House on the question of repeated penalties. If his hon. friend did not withdraw his motion, he should feel bound to support the amendment of his right hon. friend (Sir Lyon Playfair), which expressed the opinion of the House in favour of compulsory vaccination.

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